CLAIMS

1. A photomask formed with a light-shielding film pattern on a front surface of an optically transparent substrate, wherein:

the photomask comprises a non-device pattern composed of a light-shielding film pattern in a non-transfer area at a peripheral portion,

wherein there is provided, at a back surface of the optically transparent substrate opposed to at least a position where the non-device pattern is formed, light-transmission reducing means for reducing transmission of exposure light entering from the peripheral portion of the back surface of the optically transparent substrate.

2. A photomask according to claim 1, wherein:

the light-transmission reducing means comprises a thin film or a coat having a function of reducing the transmission of the exposure light.

3. A photomask according to claim 1, wherein:

the light-transmission reducing means is formed by a surface roughening treatment of the surface of the substrate.

4. A photomask formed with a light-shielding film pattern on a front surface of an optically transparent substrate, wherein:

the photomask comprises a non-device pattern composed of a light-shielding film pattern in a non-transfer area at a peripheral portion,

wherein there is provided means for reducing a difference in reflectance between a pattern portion and a non-pattern portion of the non-device pattern with respect to exposure light entering from a back surface of the optically transparent substrate, thereby preventing the non-device pattern from being resolved on a transfer target surface.

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5. A photomask according to claim 4, wherein:

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the reflectance of a light-shielding film of the pattern portion or the non-pattern portion of said non-device pattern with respect to the exposure light is adjusted so as to reduce the difference in reflectance between the pattern portion and the non-pattern portion with respect to the exposure light entering from the back surface of the optically transparent substrate.

6. A photomask formed with a light-shielding film pattern on a front surface of an optically transparent substrate, wherein:

the photomask comprises a non-device pattern composed of a light-shielding film pattern in a non-transfer area at a peripheral portion,

wherein a pattern portion and a non-pattern portion of the non-device pattern are formed by a combination of light-shielding films such that the pattern portion and the non-pattern portion differ in reflectance with respect to exposure light entering from a front surface of the photomask, but no substantial difference in reflectance between the pattern portion and the non-pattern portion is generated with respect to exposure light entering from a back surface of the photomask.

7. A photomask formed with a light-shielding film pattern on a front surface of an optically transparent substrate, wherein:

the photomask comprises a non-device pattern composed of a light-shielding film pattern in a non-transfer area at a peripheral portion,

wherein there is provided means for reducing a difference in reflectance between a pattern portion and a non-pattern portion of the non-device pattern with respect to exposure light entering from a front surface of the photomask, thereby preventing the non-device pattern from being resolved on a transfer target surface.

8. A photomask according to claim 7, wherein:

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the reflectance of a light-shielding film of the pattern portion or the non-pattern portion of the non-device pattern with respect to the exposure light is adjusted so as to reduce the difference in reflectance between the pattern portion and the non-pattern portion with respect to the exposure light entering from the front surface of the photomask.

9. A photomask formed with a light-shielding film pattern on a front surface of an optically transparent substrate, wherein:

the photomask comprises a non-device pattern composed of a light-shielding film pattern in a non-transfer area at a peripheral portion,

wherein a fine pattern, which is substantially incapable of being resolved on a transfer target surface, is formed on the non-device pattern or in an area where the non-device pattern is formed.

10. An image device manufacturing method, comprising:

a step of performing pattern transfer by the use of the photomask according to any of claims 1 to 9.